


73. The method of claim 1 wherein the phosphodiesterase inhibitor compound is sildenafil, zaprinast or T-1032.

74. The method of claim 1 wherein the tissue is treated with a further agent distinct from the phosphodiesterase inhibitor compound to increase vascular permeability.

 75. The method of claim 1 wherein a permeability agent in addition to the phosphodiesterase compound is administered and that permeability agent is serotonin, bradykinin, platelet-activating factor, prostaglandin E<sub>1</sub>, histamine, vascular endothelium growth factor, zona occludens toxin, interleukin-2, plasma kinins, L-N-monomethyl arginine or L-N-nitro-arginine methyl ester.

76. The method of claim 1 wherein the nucleic acid is administered under a calcium ion concentration of about 500  $\mu\text{mol/L}$  or less.

77. The method of claim 1 wherein the tissue is treated with a solution having a calcium ion concentration of about 500  $\mu\text{mol/L}$  or less.

78. The method of claim 1 wherein the nucleic acid is administered by perfusion.


79. The method of claim 78 wherein the perfusate of nucleic acid is recirculated and then readministered through the organ or cell mass.

80. The method of claim 1 wherein the phosphodiesterase inhibitor compound is perfused through vasculature of the tissue prior to administration of the nucleic acid.

81. The method of claim 1 wherein a low calcium ion concentration solution is perfused through vasculature of the tissue prior to administration of the nucleic acid.

82. The method of claim 1 wherein a fluid having a calcium ion concentration of about 500  $\mu\text{mol/L}$  or less is perfused through vasculature of the tissue.

83. The method of claim 1 wherein the nucleic acid is administered as a viral vector in a solution at a concentration of about  $1 \times 10^8$  pfu/ml or greater.

 84. The method of claim 1 wherein the nucleic acid is administered to a solid cell mass.

85. The method of claim 1 wherein the nucleic acid is administered to a solid organ.

86. The method of claim 1 wherein the nucleic acid is administered to cells of heart, lung, kidney, testes, ovaries, skeletal muscle, kidneys, brain or spleen.

87. The method of claim 1 wherein the tissue is cardiac tissue.

88. The method of claim 1 wherein the tissue is liver tissue.

89. The method of claim 1 wherein the tissue comprises malignant cells.

90. The method of claim 1 wherein the nucleic acid is administered to a solid tumor.

91. The method of claim 1 wherein the tissue is mammalian.